Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte TREVOR E. WILLIS and ADRIAN M. SUGGETT

Appeal No. 1998-2226
Application No. 08/454,268

ON BRIEF

Before THOMAS, FLEMING and LALL, Administrative Patent Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 1-4 and 6-8. Claim 5 has been canceled.

The invention is directed to an interface apparatus for connection between a data handling device such as a computer and a data communication medium, such as a network, to enable data to be transferred between the device and the medium. The interface apparatus includes a data alignment device and a

memory coupled to the data alignment device for data transfer. The memory includes a number of substantially identical subsidiary memories. The data alignment device has a number of first ports, one connected to each of the subsidiary memories. The data alignment device also has a corresponding number of second ports connected to the data handling device. Under control of a bus interface and control logic, each first port is connectable with any one of the second ports. The invention is further illustrated by the following claim.

1. Interface apparatus for connection between a data handling device and a data communication medium to enable data to be transferred between the device and the medium, the apparatus comprising a data alignment device coupled in use to the data handling device; a memory coupled for data transfer to the data alignment device, the memory including a number of substantially identical subsidiary, First-In-First-Out (FIFO) memories arranged in parallel, the number of subsidiary memories being chosen such that an overall width of said subsidiary memories is at least equal to the longest length of data to be transferred between the memory and the alignment device in a single transfer step and the width of each subsidiary memory being equal to the shortest length of data to be transferred between the memory and the alignment device in a single transfer step; the data alignment device having a number of first ports, one connected to each of the subsidiary FIFOs and a corresponding number of second ports connected in use to the data handling device, and means for connecting any first port to any second port; and control means for controlling operation of the data alignment device such that in any transfer step, data having a length

corresponding to an integer multiple of the said shortest length of data can be transferred between the memory and the second ports of the data alignment device with the order of data within the length of data being determined by the connections between the first and second ports of the data alignment device.

The Examiner relies on the following reference:

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| Szczepanek | 5,305,317 | Apr. 19, 1994 (filed April 24, 1992) |

Claims 1-4 and 6-8 stand rejected under 35 U.S.C. § 103 over

Szczepanek.

Rather than repeat the positions and the arguments of Appellants and the Examiner, we make reference to the briefs[1] and the answer for the respective positions.

OPINION

We have considered the rejections advanced by the Examiner. We have, likewise, reviewed Appellants' arguments against the rejections as set forth in the briefs.

It is our view, after consideration of the record before us, that the rejections under 35 U.S.C. § 103 are not proper. Accordingly, we reverse.

ANALYSIS

As a general proposition, in an appeal involving a rejection under 35 U.S.C. § 103, an Examiner is under a burden to make out a prima facie case of obviousness. If that burden

[1] A reply brief was filed as Paper No. 16, and was entered into the record, Paper No. 17.

is met, the burden of going forward then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness, is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Having reviewed the position of the Examiner, answer at pages 5-10, and the position of Appellants, brief at pages 4-8 and reply brief, at pages 1-5, we conclude that the Examiner has not met his burden of making a prima facie case in rejecting these claims. Szczepanek does not even disclose the concept embodied by the claimed "means for connecting any first port to any second port; and control means for controlling operation of the data alignment device such that in any transfer step, data having a length corresponding to an integer multiple of the said shortest length of data can be transferred between the memory and the second ports of the

data alignment device with the order of data within the length of data being determined by the connections between the first and second ports of the data alignment device." (claim 1).

As asserted by the Examiner, answer at page 5, Szczepanek, col. 18, lines 55-65, does state that "a byte counter is maintained for data alignment." However, Szczepanek's "data alignment" is not the same data alignment as recited in the claim. In Szczepanek, the byte counter simply makes sure that the proper parts of a frame (an information packet) are appended to the frame at particular times of the transmission of the frame. In Szczepanek, therefore, there is no shifting of data among the various ports as alleged by the Examiner. This is clearly different from the data alignment device as claimed in the recited language which allows simultaneous shifting of data from each of the subsidiary FIFOs by controlling the connections between the first and second ports. The byte counter of Szczepanek simply monitors and controls the order in which various parts of a frame are appended to the frame as it is being transmitted between the internet and the first computer. Thus, we agree with

Appellants that, reply brief at page 4, unlike the byte counter of Szczepanek, the claimed "data alignment device does not just synchronize bytes but actually organizes their relative order within the length of data and, furthermore, forms

a part of the flow path through which data is conveyed." Therefore, we will not sustain the rejection of claims 1-4 and 6-8 over Szczepanek.

Accordingly, the decision of the Examiner rejecting claims 1-4 and 6-8 under 35 U.S.C. § 103 over Szczepanek is reversed.

REVERSED

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| JAMES D. THOMAS<br>Administrative Patent Judge | ) | |
| MICHAEL R. FLEMING<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| PARSHOTAM S. LALL<br>Administrative Patent Judge | ) | |

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SUGHRUE MION ZINN MACPEAK & SEAS, PLLC
1010 EL CAMINO REAL
SUITE 360
MENLO PARK, CA 94025